HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS

November 15, 2017

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Northwest Region, Portland Office
Portland Harbor Section
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HAI Project No. 2708 DEQ ECSI File No. 84

SUBJECT: Progress Report, NW Natural Site, 7900 NW St. Helens Avenue and 7200 NW Front Avenue, Portland, Oregon

Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report to summarize Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural relating to historic manufactured gas plant (MGP) activities at the NW Natural Site during the month of October 2017. NW Natural is completing upland investigation and cleanup activities at the NW Natural Site under the Voluntary Agreement No. ECVC-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1. ACTIONS TAKEN UNDER THE VOLUNTARY AGREEMENT DURING THE PREVIOUS MONTH

Tasks related to maintenance of the HC&C system and the groundwater treatment system were conducted in October 2017, with the system operating in full long-term operational mode.

A total of 11,730,466 gallons of water were treated in the on-site groundwater treatment plant and discharged during October 2017. Discharged water met all effluent criteria set by the facility's NPDES permit.

Baseline DNAPL removal as needed to maintain levels below the top of the well sumps was conducted by Anchor QEA during October 2017 in the following wells near the river shoreline.

- MW-26U
- MW-27U
- MW-38U
- MW-PW2L
- PW-2L
- PW-6U

NW Natural's third quarter 2017 integrated groundwater monitoring event across the Gasco Operable Unit, initiated during September 2017, was completed on October 19, 2017.

Smoke testing of various catch basins and downspouts in the Koppers Leasehold, NW Natural Mixing Station, and adjacent areas was completed under the direction of Anchor QEA on October 18, 2017. This work was completed to determine subsurface configuration and connectivity of stormwater drainage features at these portions of the property.

The following upland FS related field tasks were in progress during September:

 Outdoor air sampling activities, to be completed based on DEQ comments from review of the May 2016 Gasco Uplands Feasibility Study Data Gaps Investigation Work Plan and subsequent communications, were initiated on September 12, 2017 with deployment of the 30-day passive diffusive samplers. All outdoor passive samplers were retrieved on October 12, 2017 after 30 days of deployment and were transmitted to the laboratory for analysis.

In addition to passive diffusive sampling, 24-hour active air sampling using pumps and TO-17 sorbent tubes occurred at approximate 5 day intervals between September 12, 2017 and October 12, 2017 (e.g., 6 events). During October 2017, the TO-17 sorbent tube sampling events were conducted over the following timeframes:

- o TO-17 Event 5: October 4-5, 2017
- o TO-17 Event 6: October 10-11, 2017
- Weekly measurements of DNAPL presence at Fill WBZ wells MW-43F, MW-44F, and MW-45F were conducted during October. Since installation in August, measurements have identified up to 2-inches of DNAPL in the base of well MW-43F; no DNAPL indications within well MW-44F; and up to 1.75 feet of DNAPL at the base of well MW-45F.
- DNAPL samples were collected for laboratory testing from DNAPL mobility assessment well MW-45F on October 31, 2017.

2. ACTIONS SCHEDULED TO BE TAKEN IN THE NEXT MONTH

NW Natural and DEQ technical working group communications and meetings will occur as needed within the next month to discuss ongoing project tasks.

- Routine baseline DNAPL measurements and removal will continue as needed to maintain levels below the top of the well sumps in nearshore HC&C-related wells.
- Ongoing technical analyses and discussions with DEQ to finalize input parameters for the RI/RA Addendum for the Siltronic portion of the Gasco OU will continue during the indicated timeframe.
- Meet with DEQ to present NW Natural's evaluation of transducer calibration data.

The following upland FS related tasks will be in progress:

- Temporary sub-slab soil gas sampling points (SS-1 through SS-8) will be removed during November and the floor at each sample location will be patched to match the surrounding surface (completed November 7, 2017).
- DNAPL samples will be collected for laboratory testing from DNAPL mobility assessment wells MW-43F and MW-44F should measurable thicknesses / sufficient volumes be identified at those locations during November.
- Laboratory data validation activities related to the Outdoor Air Investigation will occur during November and will likely continue into early December

3. LABORATORY TEST RESULTS RECEIVED DURING THE PREVIOUS MONTH

NW Natural receives test results on a regular basis as a result of routine monitoring related to groundwater quality or as specified by various permit requirements. Additionally, test results are periodically received through implementation of task-specific investigation activities resulting from agency-approved work plans. These data are provided to DEQ or the permitting authority (if different than DEQ) in accordance with previously-approved formats and schedules.

4. PROBLEMS EXPERIENCED DURING THE PREVIOUS MONTH

There were no problems of significance experienced during the previous month.

Should you have any questions, please contact the undersigned.

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Sincerely

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Principal

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